ROBSON BIGHT (MICHAEL BIGG) ECOLOGICAL RESERVE

PURPOSE STATEMENT

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Approved by:

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Purpose Statement

Ecological reserves are areas selected to preserve representative and special natural ecosystems, plant and animal species, features and phenomena. The key goal of ecological reserves is to contribute to the maintenance of biological diversity and the protection of genetic materials. All consumptive resource uses and the use of motorized vehicles are prohibited. **Robson Bight Ecological Reserve is closed to the public to maintain the area as a killer whale sanctuary.**

Primary Role

The **primary** role of Robson Bight (Michael Bigg) Ecological Reserve is to provide a sanctuary for killer whales and to protect significant killer whale habitat. It is the only sanctuary for killer whales on the west coast of Canada and is globally significant. The whales are a large tourism draw for the North Island, but here in the ecological reserve, the whales are free from harassment. The area is unique for its intensity of use by killer whales, and the range of activities engaged by them. Other marine mammals that occur in the area include humpback whales, Dall's porpoises and Pacific white-sided dolphins.

The ecological reserve also protects the only undisturbed estuary on the east coast of Vancouver Island, forested shorelines, and an environment rich with marine life due to strong tidal currents that produce constant mixing of Johnstone Strait waters. Up to 70 percent of the salmon heading for the Fraser River spawning grounds pass through the area. The estuary has diverse flora and fauna, supports high populations of invertebrates, and is important feeding and rearing habitat for juvenile coho salmon, Dolly Varden char, and herring. All five species of Pacific salmon, steelhead trout, cutthroat trout, Dolly Varden char, and eulachon migrate through the estuary to spawning grounds in the Tsitika River. The Tsitika River is important for its summer run of steelhead trout, which is the only significant run left on the east coast of Vancouver Island. The river system and associated mature forests is also an important flyway for the red-listed marbled murrelet and important breeding and foraging habitat for northern goshawks.

Secondary Role

The **secondary** role is to protect the natural environment. Robson Bight (Michael Bigg) Ecological Reserve contributes to the representation of the Northern Island Mountains Ecosection (NIM) and the Johnstone Strait Marine Ecosection (JS) both of which are under represented in the protected areas system. With 1,248 hectares of foreshore Robson Bight (Michael Bigg) Ecological Reserve is the 2nd largest contributor to the representation of the Johnstone Strait *Marine* Ecosection.

Together with Lower Tsitika River Park, Mount Derby Ecological Reserve and Tsitika Mountain Ecological Reserve, much of the lower end of the Tsitika River has been protected.

Tertiary Role

The **tertiary** role is for research and education. The Robson Bight (Michael Bigg) Ecological Reserve provides an opportunity to educate visitors to the North Island about killer whales, their biology and the ecological reserves program. The ecological reserve has hosted and continues to support research on the interaction between whale watchers and the whales and on whale biology and sociology.

Quaternary Role

The **quaternary** role of the park is to protect cultural values, both First Nations and European. The park protects significant First Nations values that offer glimpses to the past and demonstrate their tie to the land. An artefact of European settlement, an historic telegraph line, can also be found in the park.

Management Issues

Known Management Issue	Response
Disturbance of whales in bight by recreation use especially whale watching and aircraft overflights, and by research projects	➢ Maintain the warden program to maintain the sanctity of the ecological reserve, to continue research on killer whale use and behaviour in the area, and to enforce the public access closure. ➢ Ensure ecological reserve boundary signs are visible and the boundary is clear on marine charts as well as the closed access status. ➢ Liaise with the marine mammal research community to ensure impacts are minimized while engaging in research. ➢ Continue support of non intrusive scientific research crucial for protective management. ➢ Support studies to determine the impacts of vessels on whales in the short and long term.
Impact of nearby logging, commercial fishing, and industrial marine traffic on the ecological reserve	➢ Deal with overlapping jurisdictional responsibilities by participating in a provincial/federal committee for the management of killer whales in the Johnstone Strait. ➢ Review forest development plans to ensure that forest harvesting activity does not impact the ER. ➢ Work closely with Fisheries and Oceans Canada on closing the ecological reserve to all recreational fishing, and managing commercial fishery to minimize impacts to the ecological reserve and whales.
Lack of understanding and awareness of complete natural and cultural values present in the ecological reserve	➢ Implement inventory plan, including estuary mapping. ➢ Undertake a cultural inventory and traditional use study in conjunction with First Nations. ➢ Provide education information on website and at key departure points. Work with Vancouver Aquarium and researchers to increase public understanding.
First Nation relations	➢ Develop good working relationships with First Nations to develop an understanding and appreciation of protected area status and ecological reserve values.

Conservation

Representation - ecosection	☒	Robson Bight (Michael Bigg) Ecological Reserve contributes 1.04% to the representation of the Northern Island Mountains Ecosection (NIM), which is under protected at 9.1%. The ecological reserve is one of 18 protected areas that contribute to the representation of NIM. When treated as a contiguous protected area in conjunction with Lower Tsitika River Park, Tsitika Mountain ER, and Mount Derby ER, its contribution to the representation of NIM increases to 10.1%. Robson Bight (Michael Bigg) Ecological Reserve contributes the second largest contribution of 13.4% to the representation of the Johnstone Strait *Marine* Ecosection (JS), which has only 3.7% protected provincially. Broughton Archipelago Marine is the largest contributor with 53.8%.
- biogeoclimatic subzone/variant	☒	Minimal contribution (0.41%) to the overall representation of CWHvm1, which has only 7% of its area protected. When treated as a contiguous protected area, the contribution increases to 2.1%.
Special Features	☒	Killer whale habitat, rubbing beaches, pristine estuary, coastal marine environment, fish habitat
Rare/Endangered Values	☒	Core habitat for *red-listed* NE Pacific resident killer whale. Important for *red-listed* transient killer whale, marbled murrelet, northern goshawk, and *blue-listed* humpback whale, cutthroat trout, eulachon and Dolly Varden. *Yellow-listed species of conservation concern (S3-S4):* coho, chinook, and sockeye salmon.
Scientific/Research Opportunities	☒	Numerous research programs based on killer whales. Human/whale interaction. Several programs based on the estuary, fishery/marine resources, forest and sedimentology.

Recreation

Representation backcountry	☐	Not Applicable
destination	☒	The nearby area is a premier whale watching destination
travel corridor	☒	Part of the heavily traveled Inside Passage marine route

local recreation	☐	Not Applicable
Special Opportunities	☐	Not Applicable
Education/Interpretation Opportunities	☒	Killer whales and cultural features offsite through live coverage on internet/radio and by having interpretation at Telegraph Cove for all parks in the area

Cultural Heritage

Representation	☒	Long history of First Nation occupation
Special Feature	☒	Post-contact telegraph trail; First Nations village site, shell middens, CMTs, stone fish weir (6 archaeological sites)

Other Management Considerations

Other Designations	☐	Not Applicable
Relationship to other PAs	☒	Part of a system of marine protected areas on the coast of British Columbia
Co-operative Management Arrangements	☐	Not Applicable
Partnerships	☒	Volunteer ecological reserve warden; potential partnership with Fisheries and Oceans Canada
Vulnerability	☒	Disturbance of whales by visitors to bight; natural values are vulnerable to oil spills, adjacent forest harvesting, commercial fishing, industrial marine traffic
Relationship to other Strategies	☒	Marine Protected Areas Strategy, North Island Straits Coastal Plan

Area: 1,715 hectares (467 ha upland; 1,248 ha foreshore)

Date of establishment: June 17, 1982